

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Graham MENSA-WILMOT et al. Art Unit:
Serial No.: Examiner:
Filed: HEREWITH
Title: STRUCTURE FOR POLYCRYSTALLINE DIAMOND INSERT DRILL BIT
 BODY AND METHOD FOR MAKING

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

PRELIMINARY AMENDMENT

Prior to examination on the merits, please amend the application as follows and consider the included remarks.

IN THE CLAIMS:

[c1] (Original) A method for forming a drill bit body, comprising:
infiltrating powdered tungsten carbide with a binder alloy in a mold, the mold having therein at least one displacement adapted to form a mounting pad for a cutting element, the displacement comprising a substantially cylindrical body having a diameter selected to substantially conform to a radius of the cutting element and a projection adapted to form a relief groove under a position of a diamond table in the cutting element when the cutting element is mounted on the pad, a width of the relief groove selected so that the relief groove extends back from an outer surface of the bit body at least about 40 percent of that portion of a thickness of the diamond table which does not extend past the outer surface.